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EXAMINER

AMIN, JWALANT B

ART UNIT

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2628

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Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 6/16/2006 have been fully considered but they are not persuasive.
2. Regarding claims 1, 3-6 and 8-10, the Applicant argues that Sasaki and Stone do not disclose "... a special effect device comprising address signal generating means for generating a readout address signal for said picture signals stored in said frame buffer so that, by flipping a picture, ruptured with an optional position of a picture, corresponding to said picture signals stored in said frame buffer, as a rupture point, for extending along a curve formed by an arc of a circle of a radius of an optional size, defined on a second virtual plane perpendicular to a first virtual plane to which belongs said picture, and by moving, after said picture corresponding to said rupture point has reached a height of the diameter of the circle on said second virtual plane, said picture corresponding to said rupture point along a plane parallel to said first virtual plane, such a special effect will be obtained in which the picture on said first virtual plane is peeled off sequentially radially along said arc about said optional position as center so as to disappear to outside a display area wherein said address generating signal generating means converts a rectangular coordinate system of said picture signals to a polar coordinate system of said picture signals to a polar coordinate system" (see page 15 last three lines and page 16 first 10 lines of Applicant's remarks).
3. However, the Examiner, in the earlier office action, had shown that Sasaki and Stone teach a special effect device comprising address signal generating means for

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generating a readout address signal for said picture signals stored in said frame buffer so that, by flipping a picture, ruptured with an optional position of a picture, corresponding to said picture signals stored in said frame buffer, as a rupture point, for extending along a curve formed by an arc of a circle of a radius of an optional size, defined on a second virtual plane perpendicular to a first virtual plane to which belongs said picture, and by moving, after said picture corresponding to said rupture point has reached a height of the diameter of the circle on said second virtual plane, said picture corresponding to said rupture point along a plane parallel to said first virtual plane, such a special effect will be obtained in which the picture on said first virtual plane is peeled off sequentially radially along said arc about said optional position as center so as to disappear to outside a display area. Please see rejection of claims 1 and 6 for further details.

The Examiner had pointed out the reasons for rejecting claims 1 and 6 in the earlier office action, where the Examiner shows that Sasaki (Fig. 3, Fig. 5, col. 1 lines 63-68, col. 2 lines 1-4, col. 13 lines 34-47, col. 18 lines 32-35) teaches the claimed invention, in view of Stone (pages 2-3). The Applicant fails to point out the errors and disagreements with the examiner's earlier rejection. The Applicant has not discussed the references applied against the claims, and explained how the claims avoid the references or distinguish from them.

The Examiner further interprets that:

Although Sasaki and Stone teach the claimed limitations as stated above, except that they do not explicitly teach address signal generating means converts a rectangular

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coordinate system of said picture signals to a polar coordinate system. However, Shiraishi teaches to transform the orthogonal coordinates (rectangular coordinate system) into the polar coordinates (polar coordinate system) (col. 3 lines 18-37).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to transform the orthogonal coordinates of the special effect device of Sasaki and Stone into the polar coordinates as taught by Shiraishi because the gain control for the random number generator is performed by pattern function, which depends upon θ of polar coordinates, so that the extension amount of burst can be controlled by the angle for the center of burst, and effect such as a television image having the aspect ratio 4:3 burst uniformly can be obtained (col. 6 lines 56-62).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3-6 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al. (US 4,860,217; hereinafter referred to as Sasaki), in view of Ken Stone ("Perspective Filters in FCP", date: November 2001, http://www.lafcpug.org/tutorials/basic_perspective_print.html; hereinafter referred to as Stone), and further in view of Shiraishi et al. (US 5,521,648; hereinafter referred to as Shiraishi).

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6. Regarding claim 1, Sasaki teaches a special effect device (Fig. 5 and col. 13 lines 34-42; a system for transforming image signals which achieves the above-described series of transformation processing corresponds to a special effect device) in which picture signals are read out from a frame buffer based on an address signal (col. 13 lines 43-47; image data corresponds to picture signals; image memory corresponds to frame buffer) to impart a desired special effect to the picture signals read out from the frame buffer (col. 13 lines 45-47, col. 18 lines 32-35; page turn-over effect corresponds to special effect; carries out image transformation such that the input image can be transformed to the output image having the page turn-over effect corresponds to impart a desired special effect; input image data IND is ... read image data is in turn read out corresponds to picture signals read out from said frame buffer), the special effect device comprising address signal generating means for generating a readout address signal for the picture signals stored in the frame buffer (col. 13 lines 43-47; image memory corresponds to frame buffer; read image data corresponds to picture signals stored in frame buffer). Sasaki also teaches "page turn-over effect" (Fig. 3, col. 1 lines 63-68, col. 2 lines 1-4; page of a book were turned over corresponds to obtaining a folded figure).

Sasaki discloses all of the claimed limitations as stated above, except that Sasaki does not explicitly teach the special effect device flips a picture ruptured with an optional position of a picture, corresponding to said picture signals stored in said frame buffer, as a rupture point, for extending along a curve formed by an arc of a circle of a radius of an optional size, defined on a second virtual plane perpendicular to a first virtual plane to which belongs said picture, and by moving, after said picture corresponding to said

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rupture point has reached a height of the diameter of a circle on said second virtual plane, said picture corresponding to said rupture point along a parallel plane to said first virtual plane, such a special effect will be obtained in which the picture on said first virtual plane is peeled off sequentially radially along said arc about said optional position as center so as to disappear to outside of a display area. The examiner takes an official notice of the fact that when a picture is ruptured, it would create a hole and generate a folded figure with many curls around the periphery of the hole. However, Stone teaches to generate the peel effect by flipping the original image or the back image (Pages 2-3; image below the backside of the curl is mapped with the same image as on the front corresponds to flipping a picture; starting point of the curl corresponds to rupture point; the curve of the curl corresponds to the curve formed by an arc of a circle of a radius of an optional size; the image lies on the first virtual plane; part of the curled image perpendicular to the image lies on a second virtual plane which is perpendicular to the first virtual plane the other part of the curl that is parallel to the image lies in the plane parallel to the first virtual plane; checking this box will keep the curl from wrapping around itself and will simply peel the image corresponds to picture moves along the plane parallel to the first virtual plane; if the amount is 100, the curl progresses to the end of the image which corresponds to the image disappears from the display area; how far the curl will progress corresponds to moving; figures with peel effect and peel effect with image on back as shown on page 3 shows the special effect obtained by peeling off sequentially radially along the arc, and at the same time showing the flipped original image or the back image respectively). Therefore, it would have been obvious to

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one of ordinary skill in the art at the time of present invention to use the curl filter and page-peel transition effect as taught by Stone and apply it into the "page turn-over effect" method of Sasaki to create special effects because adding such additional filters will give the user the opportunity to be truly creative and generate a nice special effect (page 6).

The combination of Sasaki and Stone teach all of the claimed limitations as stated above, except that they do not explicitly teach address signal generating means converts a rectangular coordinate system of said picture signals to a polar coordinate system. However, Shiraishi teaches to transform the orthogonal coordinates (rectangular coordinate system) into the polar coordinates (polar coordinate system) (col. 3 lines 18-37). Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to transform the orthogonal coordinates of the special effect device of Sasaki and Stone into the polar coordinates as taught by Shiraishi because the gain control for the random number generator is performed by pattern function, which depends upon θ of polar coordinates, so that the extension amount of burst can be controlled by the angle for the center of burst, and effect such as a television image having the aspect ratio 4:3 burst uniformly can be obtained (col. 6 lines 56-62).

7. Regarding claims 3 and 4, in addition to the rejection provided in claim 1, Sasaki also teaches an address signal generating device and an address signal generating method (Fig. 5, col. 4 lines 7-8, col. 13 lines 40-42; system corresponds to device; a method for effecting a transformation of a video image corresponds to a method for

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generating an address signal; a system for transforming image signals corresponds to address signal generating device).

8. Regarding claim 5, the statements presented above for claim 3 are incorporated herein.

Sasaki teaches all of the claimed limitations as stated above, except that the address signal generating process is executed by an address signal generating program. Sasaki teaches to execute the process using a dedicated hardware system. However, Stone teaches to use software to perform special effects (pg. 1-6; FCP stands for Apple's Final Cut Pro which is a software program). Therefore, it would have been obvious to one of ordinary skill in art at the time of present invention to use a computer software program as taught by Stone to create special effects as taught by Shiraishi because a software program is portable and thus it could be used to create special effects in a computer system without a dedicated hardware.

9. Regarding claim 6, Sasaki teaches a special effect device (Fig. 5 and col. 13 lines 34-42; a system for transforming image signals which achieves the above-described series of transformation processing corresponds to a special effect device) in which picture signals are read out from a frame buffer based on an address signal (col. 13 lines 43-47; image data corresponds to picture signals; image memory corresponds to frame buffer) to impart a desired special effect to the picture signals read out from the frame buffer (col. 13 lines 45-47, col. 18 lines 32-35; page turn-over effect corresponds to special effect; carries out image transformation such that the input image can be transformed to the output image having the page turn-over effect corresponds to impart

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a desired special effect; input image data IND is ... read image data is in turn read out corresponds to picture signals read out from said frame buffer), the special effect device comprising address signal generating means for generating a readout address signal for the picture signals stored in the frame buffer (col. 13 lines 43-47; image memory corresponds to frame buffer; read image data corresponds to picture signals stored in frame buffer). Sasaki also teaches "page turn-over effect" (Fig. 3, col. 1 lines 63-68, col. 2 lines 1-4; page of a book were turned over corresponds to obtaining a folded figure).

Sasaki discloses all of the claimed limitations as stated above, except that Sasaki does not explicitly teach the special effect device flips a picture ruptured with an optional position of a picture, corresponding to said picture signals stored in said frame buffer, as a rupture point, for extending along a curve formed by an arc of a circle of a radius of an optional size, defined on a second virtual plane perpendicular to a first virtual plane to which belongs said picture, and by moving, after said picture corresponding to said rupture point has reached a height of the diameter of a circle on said second virtual plane, said picture corresponding to said rupture point as if said picture corresponding to said rupture point is rolled along the other arc, such a special effect will be obtained in which the picture on said first virtual plane is peeled off sequentially radially along said arc, about said optional position as center, so as to disappear to outside of a display area. The examiner takes an official notice of the fact that when a picture is ruptured, it would create a hole and generate a folded figure with many curls around the periphery of the hole. However, Stone teaches to generate the peel effect by flipping the original image or the back image such that the curl of the image will wrap around itself

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(Pages 2-3; image below the backside of the curl is mapped with the same image as on the front corresponds to flipping a picture; starting point of the curl corresponds to rupture point; the curve of the curl corresponds to the curve formed by an arc of a circle of a radius of an optional size; the image lies on the first virtual plane; part of the curled image perpendicular to the image lies on a second virtual plane which is perpendicular to the first virtual plane; the other part of the curl that is parallel to the image lies in the plane parallel to the first virtual plane; checking this box will keep the curl from wrapping around itself and will simply peel the image corresponds to picture moves along the plane parallel to the first virtual plane; wrapping the curl means to complete the circle by rolling to the other arc of the circle, and so curl wrapping around itself corresponds to picture is rolled along the other arc of the circle; if the amount is 100, the curl progresses to the end of the image which corresponds to the image disappears from the display area; how far the curl will progress corresponds to moving; figures with peel effect and peel elect with image on back as shown on page 3 shows the special effect obtained by peeling off sequentially radially along the arc, and at the same time showing the flipped original image or the back image respectively). Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to use the curl filter and page-peel transition effect as taught by Stone and apply it into the "page turn-over effect" method of Sasaki to create special effects because adding such additional filters will give the user the opportunity to be truly creative and generate a nice special effect (page 6).

The combination of Sasaki and Stone teach all of the claimed limitations as stated above, except that they do not explicitly teach address signal generating means converts a rectangular coordinate system of said picture signals to a polar coordinate system. However, Shiraishi teaches to transform the orthogonal coordinates (rectangular coordinate system) into the polar coordinates (polar coordinate system) (col. 3 lines 18-37). Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to transform the orthogonal coordinates of the special effect device of Sasaki and Stone into the polar coordinates as taught by Shiraishi because the gain control for the random number generator is performed by pattern function, which depends upon θ of polar coordinates, so that the extension amount of burst can be controlled by the angle for the center of burst, and effect such as a television image having the aspect ratio 4:3 burst uniformly can be obtained (col. 6 lines 56-62).

10. Regarding claim 8, the statements presented above with respect to claim 6 and claim 3 are incorporated herein.

11. Regarding claim 9, the statements presented above with respect to claim 6 and claim 4 are incorporated herein.

12. Regarding claim 10, the statements presented above with respect to claim 6 and claim 5 are incorporated herein.

Allowable Subject Matter

13. Claims 2 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter:

- Regarding claim 2, the prior art fails to show the equations as taught by the claim.
- Regarding claim 7, the prior art fails to show the equations as taught by the claim.

References Cited

15. The following references teach a bullet forms a hole in a metal sheet or a paper and a folded figure is obtained due to the rupturing of paper or metal sheet.

- <http://www.dreamstime.com/bazooka-holeinasteelwall-image458612>
- http://www.amazon.com/gp/product/B0002NIIQ8/qid=1141404658/sr=1-13/ref=sr_1_13/002-8108102-
- <http://photos.travisswicegood.com/v/Objects-and-Toys/StopSignBulletHole.jpg.html>

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jwalant Amin whose telephone number is 571-272-2455. The examiner can normally be reached on 9:30 a.m. - 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Zimmerman can be reached on 571-272-7653. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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